CLEMENTINE UVVIS MULTISPECTRAL PROCESSING. E.M. Lee[1], K.E. Edwards[1], T.L. Becker[1], D. Cook[1], E. Eliason[1], M.S. Robinson[1], A.S. McEwen[2], T. Colvin[3], M. Davies[3], T. Duxbury[4], T. Sorenson[5]. [1]US Geological Survey, 2255 N. Gemini Dr., Flagstaff, AZ 86001,[2]Univ. Arizona, Tucson AZ, [3]RAND, Santa Monica, CA, [4]JPL, [5]Allied Signal Technical Services, Alexandria VA.

A new control net of the Moon has been completed from Clementine UVVIS image data. These data cover 99% of the lunar surface at resolutions from 88–250 m/pixel. From this control net and ~43,000 750-nm-filter images a basemap has been completed resampled at 100 m/pixel [1,2]. The average relative positional accuracy for the basemap is ~80 meters and the average absolute accuracy is estimated at ~250 m/pixel globally. The UVVIS calibration for all bands is nearing completion and involved efforts from Applied Coherent Technology, Brown University, Jet Propulsion Lab, Lawrence Livermore Labs, United States Geological Survey, University of Arizona, and the University of Hawaii. A new series of 30° × 30° multiband quadrangles are being mosaicked from the full UVVIS multispectral data (415, 750, 900, 950, 1000 nm). These quad mosaics will be geometrically tied to the 750-nm basemap at subpixel resolution. Progress is being made on the NIR calibration and mosaicking of preliminary NIR quads should begin this summer.

The total dataset for the UVVIS global mosaic includes greater than 200,000 images. Automated matching routines have been designed to handle the band-to-band registration to speed processing and minimize utilization of human resources. Instances where the matcher fails are automatically tracked and an analyst assists in these problem areas after matching for a quad is complete. Images included in the multispectral mosaics have emission angles less than or equal to 30°; images with larger emission angles were excluded. This strategy sometimes eliminates small regions of coverage but allows for improved geometric fidelity which is critical for color analyses. Also critical for accurate color analyses across a range of phase angles is accurate photometric normalization: the lunar photometric function has been improved utilizing both Galileo SSI and Clementine multispectral data [3]. The mosaics are being normalized to a common geometry of 30° phase (with 0° emission) utilizing the new photometric corrections. This poster presents examples of each of the five UVVIS filter (415, 750, 900, 950, 1000 nm) mosaics as well as color mosaics using various filter combinations. Examples of scientific products derived from these data will also be presented. Final digital products will be archived on CD-ROM and will be made available via the Planetary Data System. Completed portions of these digital maps will be made available before CD-ROM production via the Internet. Current

calibration and photometric parameters are being made available at several WWW locations (Brown University, ACT, USGS) and these will be listed.

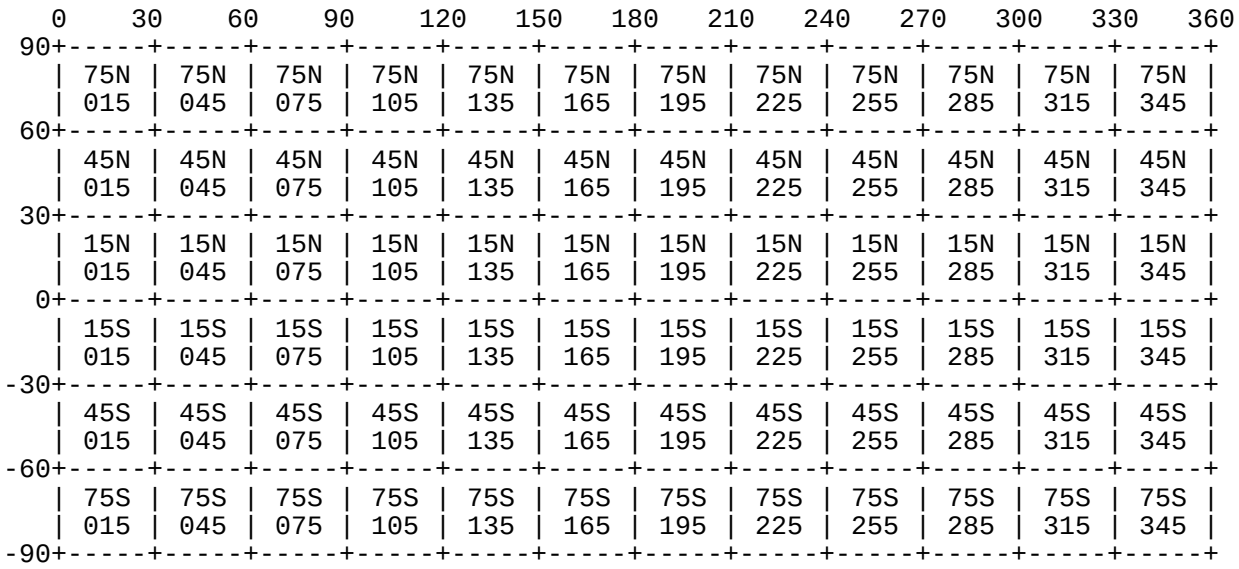

Figure 1. Clementine quadrangle layout for the multispectral mosaics now under production. Quadrangle names are six characters and are designated by the center latitude and longitude. Absolute center latitude is first followed by an N or S and then center longitude from 0 to 360. Ex: 15N045 is a quad with the center latitude at 15 degrees north and the center longitude at 45 degrees east. Quad sizes for 100 m/pixel are shown in Table 1.

Latitude Range	Lines	Samples
0-30°	9097	9097
30-60°	9097	7878
60-90°	9097	4549

Table 1. Sizes of quads in the Clementine global color mosaic.

REFERENCES CITED: [**1**] A.S. McEwen, et al., LPSC XXVI, p. 931, 1995. [**2**] K. Edwards et al., LPSC XXVII, p. 335, 1996. [**3**] A.S. McEwen, LPSC XXVII, 1996.